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EXAMINER

HUYNH, KIM T

ART UNIT PAPER NUMBER

2112

DATE MAILED: 03/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/752,099

Applicant(s)

CONNOR ET AL.

Examiner

Kim T. Huynh

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12/23/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Receipt Acknowledgement*

1. Receipt is acknowledged of the request filed on 23<sup>rd</sup> of December 2004 for a request for continued examination (RCE) under 37 CFR 1.114 based on the application No. 09/461,643, which the request is acceptable and an RCE has been established. Currently, claims 1-37 are pending in this application.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-31, 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al. (US Patent 6,047,001) in view of Onagawa (US Patent 6,567,882)

As per claims 1, 10, 26, Kuo discloses a method comprising:

- receiving status information concerning a size and location of a data packet; (col.7, lines 37-65)
- storing the status information and the statistical information on a storage device coupled to a bus(col.2, lines 60-65, wherein the memory controller is configured for writing the received data frame(statistics information) to the RAM via the host bus) using a single write procedure that accesses the bus once during the write procedure. (col.2, lines 13-22), (col.2, lines

37-67), (fig.5, 102, single write procedure further details fig.6, flow diagram included steps that perform single task)

Kuo discloses all the limitations as above except receiving statistical information concerning a bus condition. However, Onagawa discloses the state machine monitors PCI bus transactions over the PCI bus and generates PCI status information showing the phase in the course of transaction. (col.6, line 63-col.7, line 7)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Onagawa's teaching into Kuo's method so as to provide a technique for extending the PCI functions based on the information of an extended PCI configuration area. (col.1, lines 47-53)

As per claim 2, Kuo discloses the method further comprising receiving the data packets from the data bus. (col.8, lines 1-10)

As per claim 3, Kuo discloses the method further comprising monitoring the status of the bus and generating the statistical information. (col.7, lines 37-67), (col.8, lines 1-10), (also see abstract)

As per claim 4, Kuo discloses the method further comprising generating control information which specifies the storage location for each data packet. (col.7, lines 37-67), (col.8, lines 1-10)

As per claim 5, Kuo discloses the method further comprising storing the control information on the storage device. (col.7, lines 60-67), (col.8, lines 1-10)

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As per claim 7, Kuo discloses the method further comprising retrieving the data packets stored on the storage device. (col.7, lines 37-65)

As per claim 8, Kuo discloses the method further comprising retrieving the status information stored on the storage device.(col.8, lines 11-28)

As per claim 9, Kuo discloses the method further comprising monitoring the data packets, generating the status information about the data packets, and providing the status information to the method. (col.8, lines 40-54), (also see abstract)

As per claim 11, Kuo discloses an Input/Output (I/O) controller connected to a data bus; wherein said I/O controller receives from said data bus packets and said I/O controller monitors the status of said bus and generates said statistical information. (col.8, lines 1-10, 40-54)

As per claim 12, Kuo discloses a control information write process for receiving control information which specifies a storage location where each said data packet is to be stored and storing said control information on said storage device. (col.7, lines 37-65)

As per claim 13, Kuo discloses a device driver process for generating said control information and providing it to said control information write process. (col.7, lines 37-65)

As per claims 6, 14, Kuo discloses the method further comprising storing each data packet on the storage device at the storage location specified by the control information. (col.7, lines 37-65), (col.8, lines 40-54)

As per claims 15, 18, 20 Kuo discloses the reporting process further comprising:

- a first/second communication bus for interfacing said device driver process and said statistics reporting process; (col.7, lines 66-67), (col.8, lines 1-10)
- wherein said device driver process provides said control information to said control information write process via said first/second communication bus. (col.7, lines 37-65)

As per claim 16, Kuo discloses device driver process includes a packet retrieval process for retrieving said data packets stored on said storage device via said first communication bus. (col.7, lines 37-65)

As per claims 17, 19, Kuo discloses device driver process includes a status retrieval process for retrieving said status information stored on said storage device via said first/second communication bus. (col.7, lines 37-65)

As per claim 21, Kuo discloses wherein said I/O controller includes a status transmission process for monitoring said data packets, generating said status information concerning the size and condition of sad data packets, and providing said status information to said status information process via said second communication bus. (col.7, lines 37-65), (col.8, lines 1-10)

As per claim 22, Kuo discloses the storage device is a system memory. (col.5, lines 31-45)

As per claims 23, 27, Kuo discloses wherein said system memory includes a ROM and said statistics reporting process resides on said ROM. (col.7, lines 37-65)

As per claim 24, Kuo discloses wherein storage device includes a dedicated memory area for storing said statistical information, said control information, and said status information. (col.7, lines 37-65)

As per claim 25, Kuo discloses dedicated memory area includes:

- a control information storage area for contiguously storing said control information, and (col.7, lines 37-65)
- a status/statistical information storage area for contiguously storing said status information and said statistical information; (col.7, lines 37-65)
- wherein said unified write process stores said status information and said statistical information using a single write procedure.(col.2, lines 13-40)

As per claim 28, Kuo discloses a statistics reporting system comprising:

- an Input/Output (I/O) controller connected to a distributed computing network; wherein said I/O controller receives data packets from said network, monitors the status of said network and generates statistical information concerning said network's condition; (col.8, lines 1-10, 40-54)
- a status information process for receiving status information concerning a data packet; (col.7, lines 37-65)
- a statistics information process for receiving said statistical information; and (col.7, lines 37-65)
- a unified write process for storing said status information and said statistical information on a storage device coupled to a bus(col.2, lines 60-65, wherein the memory controller is configured for writing the received

data frame(statistics information) to the RAM via the host bus) using a single write procedure that accesses the bus once during the write procedure; and(col.2, lines 13-22), (col.2, lines 37-67), (col.7, lines 37-65)

- a central processing unit (CPU) for executing said statistics reporting process which resides on a ROM. (col.7, lines 66-67), (col.8, lines 1-10)

As per claim 29, Kuo discloses a control information write process for receiving control information which specifies a storage location where each said data packet is to be stored and storing said control information on said storage device. (col.7, lines 37-65)

As per claim 30, Kuo discloses the statistics reporting system further comprising:

- a first communication bus for interfacing said device driver process and said statistics reporting process; and (col.7, lines 66-67), (col.8, lines 1-10)
- a second communication bus for interfacing said I/O controller and said statistics reporting process. (col.7, lines 66-67), (col.8, lines 1-10)

As per claim 31, Kuo discloses wherein the bus comprises a network communication link. (col.4, line 66-col.5, line 3)

As per claim 36 Kuo discloses wherein the status information comprises packet size information. (col.4, lines 35-50)

As per claim 37, Kuo discloses wherein the status information comprises packet length information. (col.4, lines 35-50)



4. Claims 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al. (US Patent 6,047,001) in view of Onagawa (US Patent 6,567,882) and further in view of Hershey et al. (US Patent 5,568,471)

Kuo discloses all the limitations as above except wherein said receiving statistical information concerning a bus condition comprises receiving statistical information concerning data packets traveling from a network server to a network client.

However, Hershey discloses a workstation manages and controls a plurality of communication networks using different protocols coupled to a common bus. The filter identifies and counts addresses, security conditions and other information of interest on the bus and occurring in the networks. (abstract). The workstation monitor for identifying network protocols in packet data frames on multiple networks using different protocols for correcting operations on networks experiencing traffic problem. (col.2, lines 56-60)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Hershey's teaching into Kuo's system so as thereby enhancing the performance and utilization of data communication systems. (col.2, lines 20-25)

5. Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al. (US Patent 6,047,001) in view of Onagawa (US Patent 6,567,882) and further in view of Grobicki et al. (US Patent 5,471,474)

Kuo discloses all the limitations as above except wherein the statistical information comprises late collision information. However, Grobicki discloses

system implements protocol to allocate network bandwidth to the system nodes requesting it. The system provide granting access to the network bus, adjust slot assignments (collision information) depending on the network condition, whether the network bus is lightly or heavily loaded. (col.4, lines 10-28), (col.3, lines 52-60)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Hershey's teaching into Kuo's system so as thereby enhancing the performance and utilization of data communication systems. (col.2, lines 20-25)

6. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al. (US Patent 6,047,001) in view of Onagawa (US Patent 6,567,882) and further in view of Miller et al. (US Patent 6,151,696)

Kuo discloses all the limitations as above except wherein the statistical information comprises dropped frames information. However, Miller discloses when a status request is received, NAK are sent to the server by clients that have dropped frames, and this is an indication of congestion by those clients to the server. (col.11, lines 4-21)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Miller's teaching into Kuo's system so as to provide both fast and reliable transmission of files from a server to one or more clients over a communications link. (col.2, lines 24-33)

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***Response to Amendment***

7. Applicant's amendment filed on 12/23/04 have been fully considered but are not place an application in condition for allowance.

a. In response to applicant's argument that the combination of Kuo, Onagawa, Grobicki, and Hershey do not teach or suggest storing status information and statistical information on a storage device coupled to a bus using a single write procedure that accesses the bus once during the write procedure. Examiner respectfully disagrees. As Kuo notes at (col.2, lines 37-67), discloses the tracking information and the corresponding data frame stored in memory locations, enabling the tracking information and the corresponding data to be accessed as a single data unit. Hence, a read controller accessing can obtain frame data and the corresponding tracking information during a single read operation (a single operation implies single task). Furthermore, fig.5, step 102, col.9,lines 5-12, is the write frame data procedure, which is further disclosed more detailed steps in figure 6, the flow chart of writing data frame into memory location.(col.9, lines 47-56) so each cycle(step 102) is a single write procedure. In addition, Kuo discloses each device includes a bus interface configured for receiving a data frame from a host bus (this implies access the host bus once during the write procedure) and the memory controller configure for writing the received data frame (statistics information) into the random access memory via host bus which implies the storage device couple to bus(col.2, lines 60-65). Thus, the prior art teaches the invention as claimed and the amended claims do not distinguish over the prior art as applied.

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**Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9:00AM- 6:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached at (571)272-3632 or via e-mail addressed to [mark.Rinehart@uspto.gov].

The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306 for regular communications and After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

Kim Huynh

Feb. 25, 2005



**TIM VO**  
**PRIMARY EXAMINER**